Scott M. Matheson
Governor

STATE OF UTAH
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DIVISION OF ENVIRONMENTAL HEALTH
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Environmental Health
Family Health Services
Health Care Financing

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Administrative Services
Community Health Nursing
Management Planning
Medical Examiner
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Marv H. Maxell, Ph.D., Acting Director
801-533-6121

September 3, 1982
533-6108

RECEIVED
SEP 16 1982

James H. Anthony
Intermountain Power Project
P. O. Box 111 Rm. 931
Los Angeles, California 90051

RE: IPP Plan Review, Request for More Information

Dear Mr. Anthony:

After a preliminary review of the contract agreements which IPP submitted to this agency, we have the following comments:

1. The state air quality approval order dated December 3, 1980, was based on emission rates calculated for four boilers sized at 7.493×10^9 BTU/hr. The contract states these boilers will now be 8.352×10^9 BTU/hr. As a result of this change of boiler size, a modification to the air quality approval order will need to be made. We have calculated emission rates, which result in emission increases, as follows for the larger boilers:

	Emission Rate Per Boiler In Grams/Sec	
	24 Hour Period	Annual Average
Particulate	21.1	17.9
SO_2	158.0	134.0
NOx		492.0

Coal Usage 1.2×10^7 ton/yr
Ash Produced 1.8×10^6 ton/yr

To obtain the modified approval order, IPP must remodel the emissions from the plant using the higher emission rates (emission increase) and any new parameters resulting from the modification, such as increased stack flow rate or changes in stack temperature. The modeling must also include emissions from sources which have been approved since the date of the original approval order (December 3, 1980). David Prey of this office should be contacted to obtain a list of sources which must now be included in the allowable emission background and for other details regarding remodeling for the IPP project. Issuing a modified permit must follow all the procedural steps that issuing a new permit entails; i.e., evaluation of PSD increments, a thirty day public comment period, etc., etc.

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RJC	X
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JMH	X
LEJ	X
HML	
THM	
NEM	X
WLP	X
~~JCP~~	X
~~GHD~~	X
WSW	
D&V	X
~~Bush~~	X
SAC	X
DWW	X
FILE	X
PER JH/	

RLN
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LJW
JJC

JMH/RLN
PS: Please assemble the task force we discussed and develop an appropriate plan of action
9-19-82

2. Section 4.7 of the Utah Air Conservation Regulations (UACR) requires operation curtailment during breakdown/malfunction of pollution control equipment to a level commensurate with air control capacity. The contract calls for bypassing the baghouse and SO_2 scrubber in the event of excess temperature at the baghouse inlet, excessive pressure drop in the baghouse, excessive pressure at the inlet to the baghouse, and electrical system failure. Please submit to this office details of operating procedures during all of the above events to allow us to determine that compliance with Section 4.7, UACR, can be achieved. These procedure details will become a part of the modified approval order.

3. The contract calls for the SO_2 scrubber to be designed for operation under positive pressure. In order to reduce SO_2 emissions from leaks in the scrubber shell and duct work we normally consider negative pressure operation as BACT. If that design change can be made, please do so. If changing the design would add excessive cost to the project, the cost/benefit data should be included in a revised BACT analysis.

4. The original design was based on a lime scrubber. The contract now calls for a limestone scrubber. This change in design may create a change in the materials handling systems and fugitive dust controls and fugitive dust emission rates. If emissions will change as a result of the design change, the new emissions estimates will need to be included in the modeling. Design specifications must be submitted to this office for review. Changes in the quantity of sludge for disposal will also affect the quantity of fugitive dust created and must be included in the analysis.

5. Page 2A-17 of the baghouse contract states the filter is not required to meet performance specifications at maximum flow. State and federal regulations apply at all flow rates. Please clarify the intent of the statement on page 2A-17.

6. In order to avoid any disputes over compliance testing, we offer the following comments:

A. Detailed plans showing location of compliance emission monitors (CEMs) must be submitted for review. Our approval of the plans can be granted at a later date than the approval for the boiler and baghouse/scrubber design changes. The amended baghouse/scrubber approval would in that case have a condition such that the compliance test ports and opacity CEM location were to be identified later; i.e., in the stack at an elevation

approximately eight flue diameters above the breaching. NSPS regulations allow particulate testing upstream of the SO_2 scrubber. However, please be aware that this is not normally acceptable to the state.

B. The filter contract states that for purposes of the performance guarantee, flow measurement will be the average of stoichiometric calculations and measured values. EPA Methods 1 - 5 or 17 use only the measured value of flow rate. For compliance demonstration tests EPA Methods 1 - 5 or 17 must be adhered to.

C. Any particulates carried through the scrubber mist eliminator into the stack and captured in the sampling train are included in the compliance demonstration for particulate mass emission rate. This is true regardless of the source of the particulate; i.e., fly ash or desolved or suspended solids in the scrubber water regardless of the source of that water.

D. During the performance tests, soot blowing of boiler and economizer and stack gas reheat tubes must be representative of normal operation.

7. As you are aware (see our letter dated December 10, 1981), post construction ambient air monitoring is required for this project. The monitoring must begin with commercial start up of the first boiler. Monitoring (up to a year) is required after each major phase of construction is completed; i.e., after the first two boilers and then again after the next two boilers are on line. A detailed monitoring plan must be approved by this office prior to any monitoring being done. As with the issue on the sample port locations, the monitoring plan can be approved at a later date than the baghouse/scrubber approval.

8. Please be aware of Section 3.1.5, UACR (see enclosure). If IPP decides to build only two units at this time, the modified order we are considering covering the last two units would have to be reevaluated if and when the decision to proceed on those units was made. This reevaluation (remodeling, etc.) would have to consider any new pollution sources in the area and any new control technology developed up to that time.

The questions and statements in this letter were generated after a preliminary review of the three contracts (boiler, baghouse, scrubber) submitted to this office. More detailed questions may be asked as a more thorough review proceeds. Please contact David Kopta (533-6108) if you have any questions.

Sincerely,

Brent C. Bradford
Director
Bureau of Air Quality

DK/ads

cc: Central Utah Dist. Health Dept.
EPA Region VIII (D. Kircher)

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